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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/710,833	08/05/2004	Patrick W. Bixenman	68.0414	4832

35204 7590 04/09/2007

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EXAMINER
GAY, JENNIFER HAWKINS

ART UNIT	PAPER NUMBER
3672	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/710,833	BIXENMAN ET AL.	
	Examiner	Art Unit	
	Jennifer H. Gay	3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 February 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) *17-24* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16 and 25-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 17-24 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on October 30th, 2006.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 4, 5, 8, 9, 14, and 25-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Moore (US 6,148,925).

Regarding claims 1, 2, 32: Moore discloses a conduit for suspending a tool within a wellbore. The conduit includes the following features:

- A length of conduit **34**.
- A cable **36** inserted into the conduit where the cable has buckles that directly contact the interior surface of the conduit at a plurality of locations along the length of the conduit to prevent longitudinal movement of the cable within the conduit (3:62-4:8), where the cable is uniformly supported along the length of the conduit. *The cable maintains a helical shape within the conduit and is in frictional engagement with the inner walls of the conduit thus is uniformly supported along the length of the conduit as defined in the instant specification in paragraph 28.*

Regarding claim 4: The conduit is coiled tubing.

Regarding claim 5: The cable is an electrical power cable.

Regarding claim 8: The compressive force on the cable is less than a total weight of the cable.

Regarding claims 9, 28, 29: The cable buckles form a uniform helix within the length of the conduit.

Regarding claims 14, 27: Moore further discloses a method for installing the cable within the conduit prior to deployment into a well that involves inserting a first length of cable into the length of the conduit and inserting a second length of cable into the conduit to form buckles that are uniformly supported along the length of the conduit via contact at a plurality of locations. (The examiner notes that a second length of cable is not specifically disclosed but is considered to be inherent because cable does not come in infinite lengths and thus a second length of cable may be required to complete the length of the conduit.)

Regarding claim 25: Moore further discloses a method for fabricating a length of conduit that involves installing the cable during the fabrication. The method involves rolling a strip of metal to create a length of tubular material, inserting the cable into the tubular material so that it buckles therein, controlling the positioning of the plurality of locations to provide uniform support of the length of cable along the tubular material when the tubular material is placed in a generally vertical orientation, and sealing the tubular material to create a conduit with a buckled cable disposed therein (3:62-4:8, 4:40-54). *The positioning of the plurality of locations is controlled in that the cable will have an inherent helical shape thus one would know the spacing of the contact locations.*

Regarding claim 26: The tubular member is sealed by welding or annealing.

Regarding claim 30: The difference between the length of the cable and the length of the cable is about 05 feet of cable per 1000 feet of conduit.

Regarding claim 31: The cable is remains evenly distributed within the conduit when installed.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moore in view of Denison et al. (US 4,095,865).

Moore discloses all of the limitations of the above claim(s) except for the conduit being jointed tubing.

Denison et al. disclose a wellbore tubular that is jointed tubing with an electrical power cable disposed therein. The cable is buckled along the length of the tubing and touches the interior surface thereof.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the conduit of Moore to be jointed tubing as taught by Denison et al. in order to have been able to use the conduit as a drill string or for other purposes for which coiled tubing is not optimal.

6. Claims 6, 7, 10, 12, 13, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moore in view of McHugh et al. (US 5,954,136).

Regarding claims 6, 7, 10, 15, 16: Moore discloses all of the limitations of the above claim(s) except for operatively connecting one end of the conduit to an electric submergible pumping system.

McHugh et al. discloses a tubing system similar to that of Moore. McHugh et al. further discloses using the conduit to suspend and power an ESP within a wellbore.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have used the conduit of Moore to suspend and power an ESP within a wellbore as taught by McHugh et al. in order to have used a power conduit where the electrical power cable was not subject to the stress of the weight of the pumping system.

Regarding claim 12: The conduit is coiled tubing.

Regarding claim 13: The cable can be disposed within the conduit at the surface.

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moore in view of McHugh et al. as applied to claim 10 above, and further in view of Denison et al.

Moore and McHugh et al. disclose all of the limitations of the above claim(s) except for the conduit being jointed tubing.

Denison et al. disclose a wellbore tubular that is jointed tubing with an electrical power cable disposed therein. The cable is buckled along the length of the tubing and touches the interior surface thereof.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the conduit of Moore in view of McHugh et al. to be jointed tubing as taught by Denison et al. in order to have been able to use the conduit as a drill string or for other purposes for which coiled tubing is not optimal.

Response to Arguments

8. Applicant's arguments filed February 15th, 2007 have been fully considered but they are not persuasive.

Applicant has argued that Moore does not teach a system that provides uniform support of a cable within a length of conduit because the buckling of the cable is not uniform. Applicant further argues that the buckling in Moore cannot be uniform because Moore discloses a conventional system for feeding a cable into a conduit already located in the wellbore.

The examiner first notes that the portion of Moore to which applicant is referring, column 4, lines 65 through column 5, line 9 is not the portion of the reference on which the rejection was based. The section of Moore, column 3, line 62-column 4, line 54 clearly says that the wire line is feed into the well where the wire line is formed of coiled tubing **34** and a conductor **36** thus indicating that the conductor or cable was placed in the tubing prior to being inserted into the wellbore.

Secondly, column 3, line 62-column 4, line 8 clearly indicates that the conductor is held in its helical shape by a frictional engagement with the inner wall of the tubing and applicant has defined uniform support as the buckles being frictionally held in contact with the tubing. Applicant has further defined buckles or buckling as choosing a

cable that is sized so that it will purposefully form a helical shape thus making "a plurality of uniform points of contact with the interior surface of the conduit with sufficient…frictional forces to prevent downward longitudinal movement of the cable within the conduit" (paragraph [0028]). As this is exactly how the cable of Moore is described it is unclear as to how the cable of Moore is not uniformly supported along the length of the cable.

Applicant has further argued that Moore does not teach method of installing cable within a conduit as recited in claim 25. The examiner disagrees and notes that column 4, lines 40-54 and Figures 3 and 4 clearly teach this method.

The basis for applicant's arguments appears to be, though not actually stated, that the portion of Moore upon which the examiner based the rejections is recited as being prior art and defective to a degree. It should be noted that this does not negate the validity of the relied upon sections as prior art. Further, Moore (US 5,495,755) is drawn to the conduit taught in the background of Moore '925 and Moore et al. (US 5,122,209) is drawn to the method of forming the cable in the background of Moore '925. Thus the deficiencies pointed out by Moore '925 are irrelevant to the above rejections.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer H. Gay whose telephone number is (571) 272-7029. The examiner can normally be reached on Mon., Tues., Thurs., and Fri. from 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jennifer H Gay
Primary Examiner
Art Unit 3672

JHG
April 2, 2007